REMARKS

Amendments

Claim 1 is amended to recite that X is O, S, or NH. See, e.g., the Examples. Claims 6 and 38 are amended to be consistent with claim 1. Method claims 14-29 are cancelled, without prejudice.

Allowable Subject Matter

Applicants gratefully acknowledge the Examiner's indication that claim 7 is allowed, and that claim 8 is not rejected in view of prior art.

Rejection under 35 U.S.C. §103(a) in view of McGee et al.

Claims 1, 3, 5, 6, 9, 10, and 30-38 are rejected under 35 U.S.C. §103(a) as being obvious in view of McGee et al. (US 7,041,691). The rejection is respectfully traversed.

In the rejection it is argued that it would be obvious to modify the compounds of McGee et al.'s Examples 192-195 (see Table 25 at column 123) by replacing the -O- bridge between the benzoxazol-2-yl group and the phenyl ring with a -NH- bridge. It is noted that McGee et al. disclose other benzoxazole compounds. See the compounds of Examples 75 and 369-372.

However, McGee et al. discloses a very broad genus and specifically disclose hundreds of compounds. Nothing within the disclosure of McGee et al. would lead one to select these 9 compounds listed from among the hundred of compounds disclosed by McGee et al. and then further modify these compounds by replacing -O- with -NH- and/or modifying the -NH-SO_2- group.

At the top of page 5 of the Office Action, the rejection asserts that McGee et al. disclose certain preferences at column 16, lines 7-24. This disclosure describes a subgenus of McGee et al.'s Formula (I) (see column 7, lines 45-50) wherein:

Ar^1 is a benzoxazolyl group having from 0 to 3 substituents selected from a specified group;

R^1 is halogen, C_1-C_8-alkyl, C_2-C_8-heteroalkyl and C_1-C_8-alkoxy;

R^2 is phenyl group having from 0 to 3 substituents selected from a specified group; and

R^3 is selected from halogen, methoxy and trifluoromethoxy.

Additionally, this disclosure describes a further subgenus wherein R^1 and R^3 are each independently a halogen, and R^2 is a phenyl group having from 1 to 3 substituents selected from halogen, $-OCF_3$, and $-CF_3$.

But, neither of these subgenera encompasses McGee et al.'s compounds 75, 192-195, and 369-372. Compound 75 has no R^2 group, and in all of compounds 192-195 and 369-372 one of R^1 and R^3 is H. Thus, the "preferences" cited at the top of page 5 of the Office Action would lead one to compounds 75, 192-195, and 369-372.

Moreover, the two subgenera described at column 16, lines 7-24 of the McGee et al. disclosure are merely two of numerous "preferred" subgenera described by McGee et al. at columns 11-18. Nothing in the disclosure of McGee et al. would point one to the particular subgenera described at column 16, lines 7-24.

In Examples 373-374, McGee et al. the test results for a few of their compounds in an *in vitro* binding assay and an *in vivo* anti-diabetic efficacy animal model. None of the compounds tested are benzoxazole compounds.

Thus, the disclosure of McGee et al. does not lead one of ordinary skill in the art to select one of the specific benzoxazole compounds disclosed by McGee et al. and subject it to modification so as to arrive at a compound in accordance with applicants' claimed invention.

Subsequently to the Supreme Court's decision in *KSR Int'l Co. v. Telefex Inc.,* 550 U.S. 398, 82 USPQ2d 1385 (2007), the Federal Circuit has held that an assertion of obviousness based on structural similarity must provide a rationale as to why one would select a particular compound from the prior art, and further must provide a rationale as to why one would modify this specific compound so as to arrive at a compound of the claimed invention.

See, for example, *Takeda Chemical Industries Ltd. v. Alapharm Pty. Ltd.*, 83 USPQ 2d 1169 (Fed Cir. 2007), wherein the obviousness argument was based on an assertion that it would be obvious to select a specific compound, referred to as "compound b," and further modify compound b so as to arrive at the claimed compound known as pioglitazone. Compound b differed from pioglitazone in that compound b had a pyridine ring substituted in

the 6-position by a methyl group whereas pioglitazone had a pyridine ring substituted in the 5-position by an ethyl group.

The court held that, in accordance with the Supreme Court's decision in *KSR*, to establish structural obviousness for new chemical compounds, one must identify a known compound and further identify reasons that would lead one to modify that compound in a particular manner so as to arrive at the claimed compound.

> Thus, in cases involving new chemical compounds, it remains necessary to identify some reason that would led a chemist to modify a known compound in a particular manner to establish prima facie obviousness of a new claimed compound. (*Takeda* at 1174.)

The court in *Takeda* held that one of ordinary skill in the art would not have selected compound b as the "lead compound" to subject to further modification. The court further held that there was insufficient reason to subject compound b to homologation (changing methyl to ethyl) and/or ring-walking (moving the substituent from the 6-position to the 4-position) so as to arrive at the compound pioglitazone.

See also *Eisai et al. Ltd. v. Dr. Reddy's Laboratories Ltd.*, 87 USPQ2d 1452 (Fed. Cir. 2008). In *Eisai*, the court set forth an analysis for structural obviousness based on the Supreme Court's decision in *KSR*. The court stated that first there must be a starting point indicated in the prior art from which one skilled in the art might identify problems and pursue potential solutions. Second, the prior art must provide some reason to make a particular modification. Third, the *KSR* analysis requires that the prior art supply reasons to narrow "the prior art universe to a 'finite number of identified, predictable solutions.' " See *Eisai* at pages 1456-57.

Other subsequent decisions by the Federal Circuit also used this approach regarding first determining the lead compound(s), before then addressing the question of whether there was a reason why one would make any particular modification of the lead compound(s). See, e.g., *Altana Pharma AG v. Teva Pharms. USA, Inc.*, 91 USPQ2d 1018 (Fed. Cir. 2009), *Proctor & Gamble Co. v. Teva Pharms. USA, Inc.*, 90 USPQ2d 1947 (Fed. Cir. 2009), and *Daiichi Sankyo Co., Ltd. v. Matrix Labs, Ltd.*, 96 USPQ2d 1526 (Fed. Cir. 2010)

Turning to the present rejection, the rejection refers to four specific benzoxazole compounds disclosed by McGee et al. However, nothing within the disclosure suggests selecting any of these compounds as a lead compound for possible modification. For

example, in Example 373 McGee et al. discloses the binding activities of 33 compounds, and none of these compounds is a benzoxazole compound.

In summary, the rejection fails to set forth a rationale as to why one of ordinary skill in the art would select any or all of the benzoxazole compounds of McGee et al. as lead compounds. Further, the rejection provides no reasoning as to why one of ordinary skill in the art would modify the benzoxazole compounds of McGee et al. so as to arrive at a compound of applicants' claimed genus.

In view of the above remarks, it is respectfully submitted that the disclosure of McGee et al. fails to render obvious applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. §102(b) in view of McGee et al. and Lind et al.

Claim 11 is rejected under 35 U.S.C. §103(a) as being obvious in view of McGee et al. (US 7,041,691) and Lind et al. (US 6,579,857). The rejection is respectfully traversed.

The disclosure of McGee et al. is discussed above. In the rejection it is argued that it would be obvious to formulate a composition as a kit consisting of separate packs of the claimed compounds and a further medicament active ingredient in light of the disclosure of Lind et al.

However, the disclosure of McGee et al. does not overcome the deficiencies discussed above with regards to the disclosure of McGee et al.

In view of the above remarks, it is respectfully submitted that the disclosure of McGee et al., taken alone or in combination with the disclosure of Lind et al., fails to render obvious applicants' claimed invention. Withdrawal of the rejection is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

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